

ISSUE 20 | FEB 2009

Blender learning made easy

blender art

MAGAZINE

Make it! Bake it! Fake it!

COVERART - Moth Biter - by Derek Watts

EDITORGaurav Nawani gaurav@blenderart.org**MANAGING EDITOR**Sandra Gilbert sandra@blenderart.org**WEBSITE**Nam Pham nam@blenderart.org**DESIGNER**

Gaurav, Sandra, Alex

PROOFER

Kevin Braun
Phillip Ryals
Bruce Westfall
Joshua Leung
Lynda Schemansky
Eric Pranausk
Noah Summers
Joshua Scotton
Mark Warren
Wade Bick
Patrick O'Donnell
Brian C. Treacy
Scott Hill
Henriel Veldtmann

WRITERS

Ken Beyer
Claas Kuhnén
Lance Flavell
Dwayne Ferguson
Benno Wagner
Giancarlo Ng
Sandra Gilbert

COVER ART

MothBiter - by Derek Watts
dwatts1@gmail.com

CONTENTS

2

Tutorial - Baking normal maps from a high poly model.

6

Tutorial - Big Bobby Car (Organic Surface Modeling)

12

Tutorial - Normal Mapping in Blender

20

Tutorial - Lighting and Film Making Tricks: Conveying

23

MAKING OF: 'A Cassette Tape'

27

MAKING OF: 'Dusting Off A Surprise'

31

Bookreview - INTERVIEW: David Hickson - Blenducation

35



Sandra Gilbert
Managing Editor

Time and hardware limitations are generally the biggest reasons for using a "fake" or "cheat".

One thing I have always loved about CG art is that there is no "one right way" to do things. For any given task, there are a number of methods, techniques and tools to get it done.

And while Blender has a powerful selection of tools, sometimes the "fake" or "cheat" is often preferred for various reasons. Time and hardware limitations are generally the biggest reasons for using a "fake" or "cheat".

And then sometimes the tool actually helps create the "fake", as in the case of normal maps. Once set up, a normal helps you "fake" geometry and details that would take too long to render or cause time delay and memory issues for game models.

Well enough chattering from me, after the long wait for this issue, I'm sure you want to dive in and get your Blenderart fix.

Have fun!

sandra@blenderart.org



Almost since the beginning of the. Traditional photography and film-making the light-gel has been used for creating interesting effects...

Introduction

Over the years I have used a number of fakes, cheats and workarounds. Some I have used because there wasn't a tool or option coded yet and some because it was either easier to use the fake or because it saved render time.

Of all the fakes I have used (or read about), my favourite has always been the "Light gel", used to create interesting shadows. Almost since the beginning of traditional photography and film making the Light gel has been used for creating interesting effects.

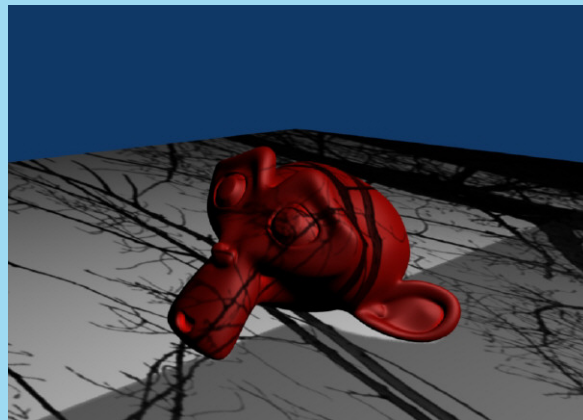
So just what is a "Light gel"? In traditional photography and film making, the term applies to sheets of acetate (or other similar clear materials) with patterns printed on them, such as bars, window panes, leaves etc. The light gel is then held in front of the specified lamp or light source to create the shadow patterns. (Light gels can also be colored to create moods or colored shadows.)

In Blender, this technique is easy to apply and doing so can save not only on modeling and set up time, but it can save quite a bit on your final render time.

So just how do you go about setting this up?

To create light gels in Blender, you simply add textures to your lamps. It's really that simple. You can use either procedural textures or images (grayscale seems to work best.)

You set up Lamp textures the same way you do for materials, (in the Texture buttons [F6]). Some fun texture types to try are "Wood" and "Clouds". Both add



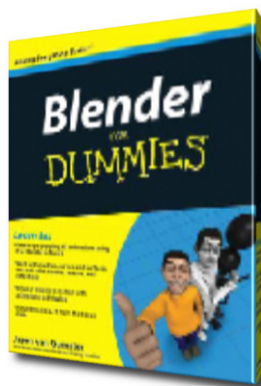
great shadow patterns. You can experiment with the other texture types to create more unusual patterns.

To create somewhat more realistic shadow patterns, of say, tree branches and or leaves, you can use a grayscale photo. Then when applying the texture to the Lamp, choose Image as the texture type and pick your grayscale photo. Instant shadows.

Blender for Dummies Arrived

By renowned Blender artist and teacher, Jason van Gumster, [Handturkey Studios](#)

So you have heard about Blender, the free 3D animation software. You really want to know more about the features of Blender, where to get it and how to use it. You are in luck! It is all in Blender For Dummies, including Blender software on the bonus DVD.



Because there is a lot to learn about Blender, you will be glad this book takes it step by step. First, you will learn to install the latest Blender release (2.48) and think the Blender way. Then you will start creating 3D objects and setting them in motion with animations and rigging. Soon you will be texturing with Blender, rendering with Blender, and sharing your creations.

DVD training 3: Character Animation

Created by William Reynish, character animator, Big Buck Bunny

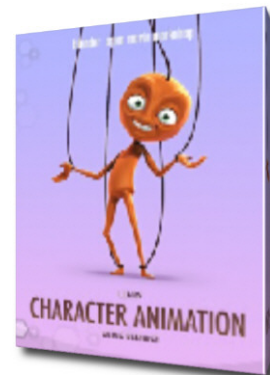
DVDs are in stock now!

Getting into animation has never been easier! With the advent of Blender, the free and open source 3D application, anyone can now gain access to professional animation tools.

This DVD covers all aspects of computer-based character animation including workflow, acting, posing, keyframes, weight, walks & runs and overlapping action, through a series of video tutorials that are easy to follow and allow you to stop and start playback whenever you want.

Each episode covers animation theories as well as practical implementation in Blender.

This DVD includes the latest (2.48a) version of Blender for Mac OS X, Windows and Linux, as well as several free to use rigged characters.



3D WORKSHOP: Baking normal maps from a high poly model.

6



Introduction

There are generally regarded to be two ways to generate normal maps from 3D content; "renderbump" and "renderbumpflat". The following tutorial discusses the creation of normal maps in the context of "renderbump", that is, using Blender 3D's own internal ability to 'bake' the topology and physical characteristics of a high resolution, highly detailed 3D object to an image called a "normal map" (#).

An understanding of Blender's basics is required, so being able to move objects, change views and manipulate objects will be necessary. It's also assumed there are assets available and ready for use - the information below won't discuss how to make high resolution 3D models.

Baking normal maps, what's needed?

To successfully bake normal maps using Blender 3D a number of items are required before anything can be done;

A low poly 'game' mesh

A high poly 'art' mesh

The "low poly 'game' mesh" is the actual mesh that will eventually be used in game, in this instance a 'tech' door shown on the left of the image below marked "low poly", this should be 'optimised' as well as possible (as few polygons as necessary for its target use), and must be UVW mapped and textured.

The "high poly 'art' mesh" will be used to provide the geometric detail that's baked to the image applied over the game mesh. The "high poly" version of the door is shown on the right of the image below.

Design note : A third version of the model is often used,

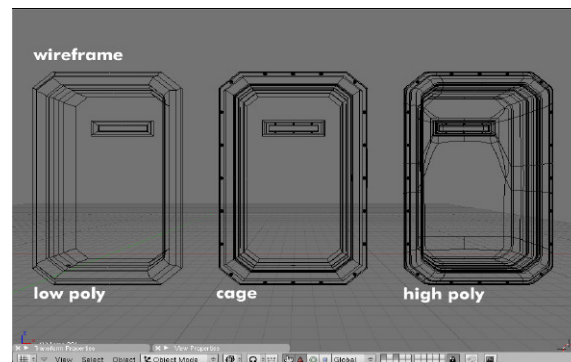


Figure 1: Wire-frame view of the required assets, in this case a 'tech(ish) doorway

called the "control cage", this is optional and more to do with work practices (#).

Preparing the models, what needs to be done beforehand?

Because the high resolution object is effectively being baked to the low resolution one, there needs to be a way for the baking process to understand what it's supposed to be doing in relation to both objects. In other words, Blender needs to know where it's supposed to 'bake' (or 'write', 'paint') the coloured normals, what areas of the texture image should have baked normals and what areas shouldn't.

By Ken Beyer

For this to happen the low poly mesh must have a functional UVW map with materials and textures assigned.

Taking the example of our tech door, shown below is its UVW map as laid out and occupying a partial section of the available image space; it only uses a section because other objects use the same rusty metal texture sheet; keep that in mind when UVW unwrapping, leave space for other objects where necessary.

Design note : *keep in mind that depending on how many assets need to be UVW unwrapped and normal map baked, the distribution and amount of space available for use by any given individual object will need to be adjusted where appropriate (#).*

The high poly mesh does not need to be UVW mapped.

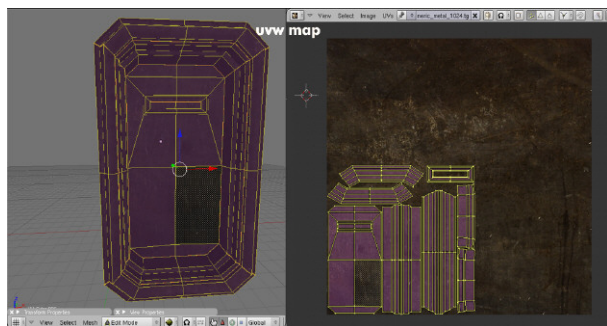


Figure 2: Low poly door model showing UVW map active in both the 3D view (left) and image/uvw edit view (right)

HOW TO : Create or edit a UVW map

Before doing any UVW unwrapping it's best to make sure the low resolution model has at least one material

assigned to the mesh and at least one image/texture assigned to that material, this is important for the normal map baking process.

Note : *Render baking is only available with Blender versions 2.45 or above.*

For Blender 2.45 only;

- In the 3D view, RMB select the object to be UVW unwrapped and then press [F] to enter “UV Face Select” mode.
- Press [A] to select all the UV faces of the object (this may need to be done twice, once to de-select already selected faces, and again to then re-select everything).
- Press [U] to activate the “UV Calculation” pop-up menu and select “Unwrap”, this will create a basic UVW map of the object.

For Blender 2.46 or above, do the following;

- Press [Tab] to enter edit mode as you would normally when editing the mesh.
- Press [A] to select all the objects faces (may need to be done twice, as above).
- Then as above, press [U] to activate the “UV Calculation” pop-up menu and select “Unwrap”.
- Unwrapping the mesh will create a basic UVW map for the object which will generally occupy the whole image or as much space as it's proportions will allow.

Note : It is also beyond the scope of this tutorial to cover, in any great length or detail, the various aspects and features of UVW mapping available.

If the model shares the texture sheet applied to it with other objects, that usually means the new UVW map will need to be scaled back to a more reasonable size to allow or compensate for the presence of other subsequent objects on the same texture.

So, for all versions of Blender 2.45 or above, do the following;

- Either divide the interface ([RMB] on a window edge divider, select "Split") so a separate "UVW/Image Editor" is available, or, switch to that view [Shift+F10]; the newly created UVW map should appear superimposed over the top of the image that's assigned to the material - press [Alt+Z] to toggle the display of the texture on the model to check.
- In the "UV/Image edit" view, press [A] to select UV faces (may need to be done twice as mentioned above), and then [S] to initiate "Scale", simply move the mouse to scale the selected UVW map up or down, [LMB] to set the move.

This should result in a UVW map similar to the image above, where the map itself occupies an appropriate amount of space on the image.

Preparing the models, where to put them

It's important to note at this point that baking normal maps in this way is a "like for like" process, it's not explicitly a 'projection' - one object being 'projected' onto another - but rather relies on the objects occupying the exact same co-ordinate in 'XYZ' space. In other words,

the objects have to sit on top of each other in order for this process to work correctly.

Shown below are both the high and low poly meshes placed at the exact same 'XYZ' co-ordinates on Blender's grid. It's important, at this point, to make sure that both objects are placed exactly on top of each other - it's helpful here if both objects have the same POO ('point of origin' - the little pink spot around which the cursor is usually placed when objects are selected).

HOW TO : precision position control

Assuming that both objects are using the same POO, in order to move or position them with precision do either/or of the following;

- RMB click to select an object and hold [Ctrl] whilst moving, this will 'snap' the object to the grid as it's moved.

And/or

- Press [N] to open the "Transform Properties" panel, in the "LocX", "LocY" and "LocZ" text fields, enter or edit the numbers shown so that both objects use the same values; this ensures both objects are in the same place 'numerically'.

This should put both the high and low objects into the same place; usually confirmed by the presence of something called "z-fighting" - this is the 'flicker' often seen as a result of your graphics card trying to draw coplanar surfaces at the same time (surfaces that occupy the same surface at the same time), as it can't do that, it switches or swaps the rendering of one surface with the other as the object is moved and rendered to the monitor screen.

3D WORKSHOP: Baking normal maps from a high poly model.

9

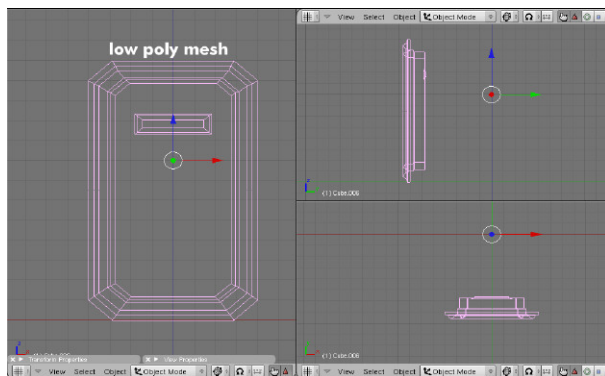


Figure 3: Low poly mesh shown relative to the 'XYZ' axis in Blender.

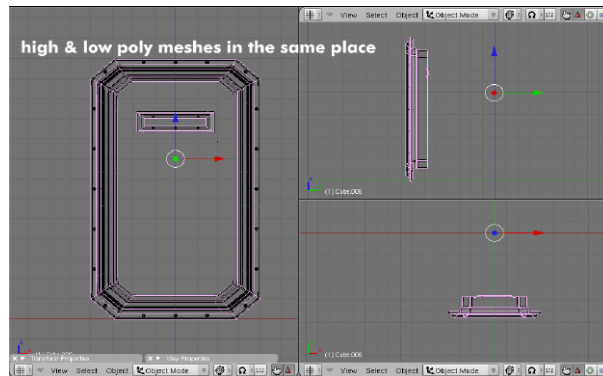


Figure 5: Showing both the high and low poly mesh in the same place (low poly is selected and highlighted (pink)).

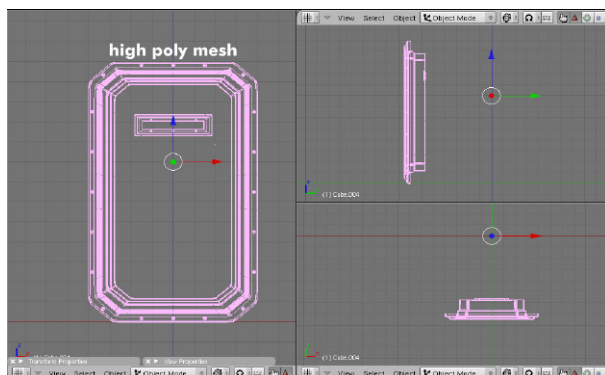


Figure 4: The high poly mesh shown placed at the same 'XYZ' coordinates on Blenders grid as the low poly version.

WARNING : Do not skip the above steps, make sure the low poly mesh has a good 'clean' UVW map and that both objects are in the exact same place; taking short cuts and ignoring the above will result in poor render results and wonky renders (for more on this see the 'advanced' section).

Baking normal maps with Blender

Baking normal maps with Blender is straight forward, both the high and low resolution versions of the model need to be selected, a few options active and a 'render' button pressed.

HOW TO : render bake normal maps

The order in which the two mesh objects are selected is important so make sure to do this correctly;

Once this initial preparation is done to both meshes, it's time to render the normal maps.

by Ken Beyer

RMB select the high resolution mesh first, then hold the “Shift” key down and RMB select the low resolution mesh - of the two meshes the low resolutions outline should be the brighter pink when done in the correct order.

Switch to the “Scene” panels window, [F10], and find the panel titled “Bake”.

- Click the “Selected to Active” as well as the “Normal” button.

Depending on where the normal map is going to be used, the drop down selection menu - currently showing “Tangent” - may need to be changed to the appropriate

setting; for game content this is usually “Tangent”, select that setting if it's not already active.

Additionally activate the “Clear” button, this will force Blender to clear the texture before it re-bakes the normal map, handy if the process is run several times. “Margin” can also be set which will force a 'bleed' amount to avoid edge anti-aliasing errors (#).

- Click the “BAKE” button to render bake the normal map to texture.

If the UV/Image editing window is open, baking will be visible as the progressive 'live' creation of the normal map as it gets baked to the texture image - depending on how big the image is, it shouldn't take too long to process. The result will be something similar to what's shown below - the normal map baked to the area mapped out by UVWs of the low resolution mesh, all that then needs to be done is to save the image. So;

HOW TO : save the baked normal map

On baking the normal map to image a small “*” should appear appended to the “Image” menu text of the view header once the process is done (it will appear as “Image*” instead of the default “Image”); this indicates there is a new image being held in the render buffer, which now needs to be saved.

- Click “Image” and select “Save As...”, a file browse window will open.
- In the header area of the newly opened file browse window, find the drop down menu “Save Image [image type]”, and select an image format that will save the image either in a 'raw' state, or one that uses 'loss-less' compression; suggestions are “Targa Raw”, “BMP” or “Tiff”.

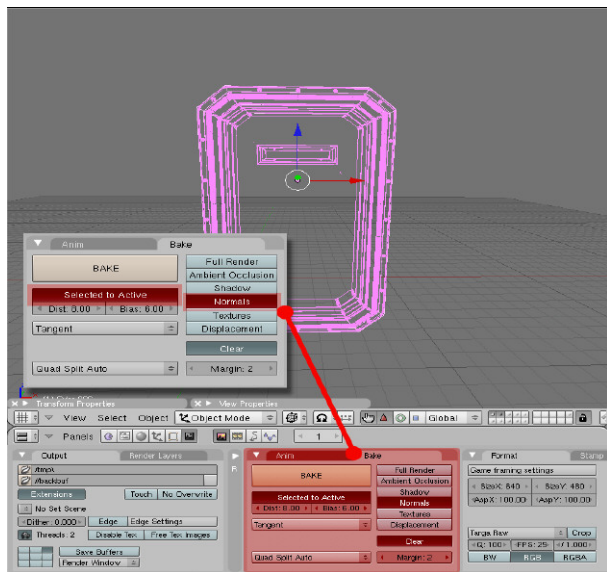


Figure 6: Making sure “Selected to Active” is set so the high resolution mesh is baked to the low.

- Click “Save Image” to save the file to the chosen format.

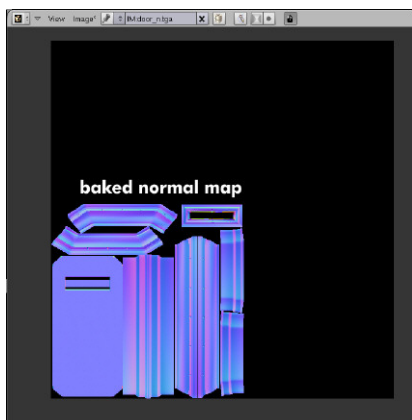


Figure 7: The resulting baked normal map shown in the UV/Image edit view.

Conclusion

Using Blender's own internal normal map render capabilities is a quick way to generate game ready normal maps and providing the steps above are followed there shouldn't be any major problems - most issues require simple 'tweaks' to fix. There are a couple of caveats to using Blender for this process however, which are discussed in the advanced section which can be found [here](#).

Additional information

Further 'advanced' normal mapping information can be found [here](#).

- Additional normal map tutorials can be found at the following links;
- From photographs to normal maps, [how to](#).
- Normal maps, texture space and [orientation](#).
- Creating normal maps from [images](#). ■

Ken Beyer, aka “kat”

Website: KatsBits - <http://www.katsbits.com>
e-mail: info@katsbits.com



Surface Modeling

Introduction

Modeling an object efficiently is often a question of understanding its basic geometric shapes and imagining a wire mesh over that surface. How far is an object a cube, a cylinder, where could parts be extruded from, and in which order do you start working? Those questions should be asked first before any serious attempt is started because it can save the time needed to model the surface and prevent time consuming re-tries.

The original Blend file is also accessible via Blenderart.org and includes all the following modeling steps and objects.

The Big Bobby Car was in particular a good object to demonstrate that type of approach.



Side, perspective, top back and front views

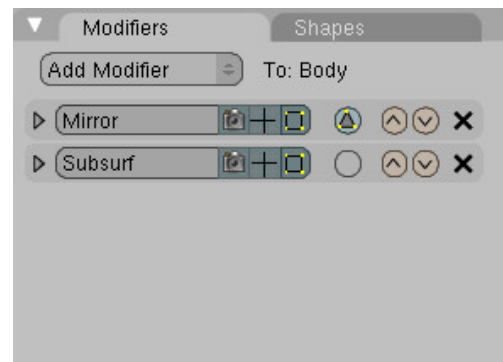
Lets look at the screenshots first and evaluate its design and curvature qualities. There are possible different approaches to start this model, however I found it to be easier to imagine this starting with the curvy edge shape of the fender, extruding it in, scaling cross sections to meet the desired height for the center parts, and then finishing it up by adding loop cuts and some pushing and pulling of control points.

The Modifier hierarchy requirement:

In particular I make use of the modifiers such as the mirror and subsurface because this is a symmetrical object and this way I only need to model half of it, but I can visualize it as a complete construction.

When using the modifier it is important to understand how the internal hierarchy works.

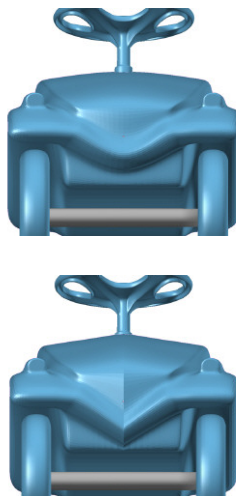
When you use the mirror modifier together with the subsurf you want the mirror to be the first one. The reason for that is the following one:



The first modifier passes the geometric result to the following one.

This means when the mirror is the first, the subsurf modifier will get a solid geometry to subdivide. Because it is a solid surface the result will be nice and smooth without any kinks or breaking edges.

When the subsurf is the first, the mirror modifier will get half a model which is subdivided and will mirror exactly that, producing a shell which clearly shows a seam.



Modeling Steps of the main body:

Lets start with browsing some images online for the Big Bobby Car and find some inspirational and useful images. In an ideal situation you want to have nice profile images. When they are hard to find, maybe hand sketching some designs will help.

Also as a small tip for making your own profile images: when using a digital camera try to stay as far away as possible from an object and zoom in as far as possible before making the shot.

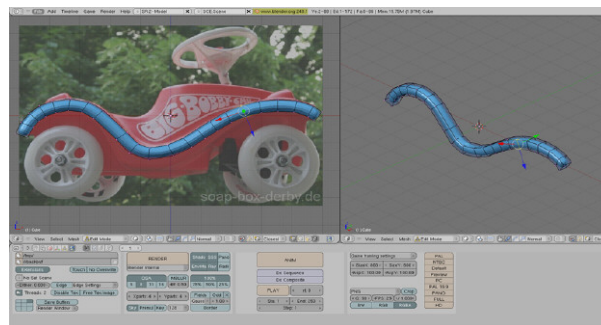
This will create a picture with a tunnel look, where perspective distortions are minimized compared to standing close to the object and using a rather wide angle which will distort your profile shots significantly. This also applies to making reference shots of a human body or head.

In my scene I used a downloaded image from the internet and worked in front and perspective view at the same time - to make it easier for you to see what happens in my scene and which steps I am executing.

Another tip before starting to work, besides saving often, is to actually distribute different stages of your models over the layers Blender has to offer. This way you can first quickly go back to an older stage and second you can easily compare maybe 2, or 3 different results/stages by just browsing through the respective layers.

Putting down basic details:

Step 1 As mentioned in the beginning I found the object to be suitable to start modeling the curved shape of the fenders first. I started with a small cube, rotated and moved the mesh to left side and started by extruding the form to the right. After each extrusion I rotated the cross section so that it was perpendicular to the curve surface of the fender. I also used the upper edge as one to orientate myself along. It is very important in this step to have perpendicular cross sections, because otherwise your fender thickness can change fast and also the flow will not be so even and easy to control.

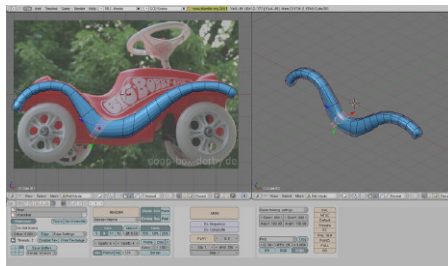


3D WORKSHOP: Big Bobby Car (Organic Surface Modeling).

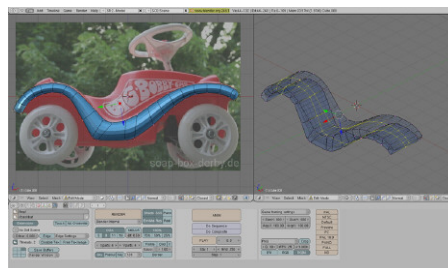
14

Step 2 The lower edge of the extruded cube model is being adjusted to more closely follow the lower line of the fender.

Pay attention to how I moved points together to gently sharpen edges and make other edges more linear.



Step 3 The model was scaled along the y axis to somewhat half of the Big Bobby Car's thickness and I added a loop cut where I would assume the engine part would flow into the fender surface.

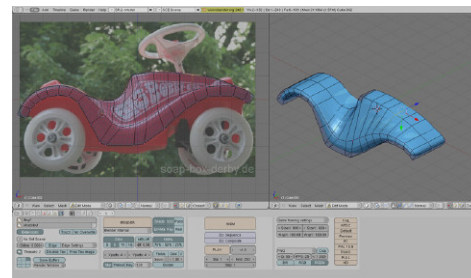
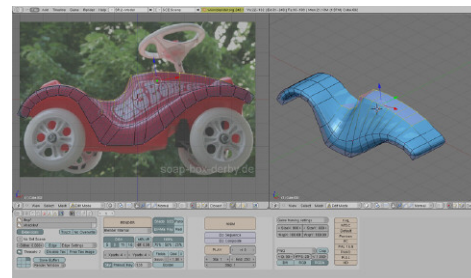


Creating basic proportions for the engine area:

Step 4 I selected those points which by simply moving them up could define the upper surface of the engine block as well as the seat for the child's hip. It was very important to arrange those points in side view in smooth curves. The space between the points should be even and the continuity should be even and not show any sudden changes which would read like dents.

Image Step-4-1 shows what I mean. A selection of points is off and creating an undesired flow.

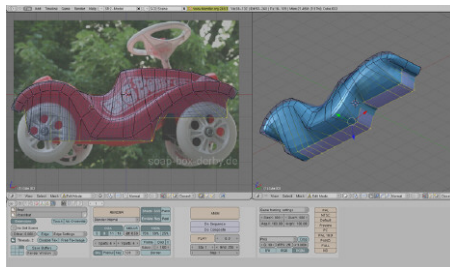
Also pay attention to how I again moved points closer together to form sharper bends at the top left engine block edge.



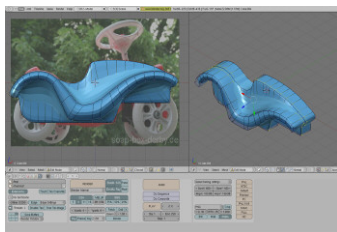
Step 5 With the same process also the lower part of the car was modeled by simply pushing and pulling points and grouping them together to form sharper edges or by distributing them evenly apart to form even and nice bends.

To align points together I selected a row of points, pressed "s" to scale, selected the, in this case, z-axis by pressing "z", and entered "0" to move all points along the z-axis closer together along the x-axis.

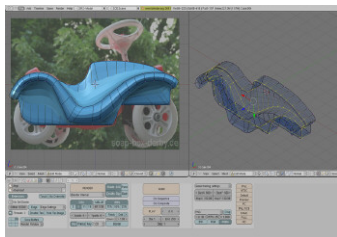
by Claas Kubpen



Step 6 Through adding two loop-cuts at the displayed position I sharpened the edge of the engine block nicely. The right loop-cut was simply placed to the right of the original line. The left loop cut was not placed initially where it is right now. I added the loop-cut close to the left edge of the model and then moved it along the y-axis to form this sharp edge at engine block and having straight falling side surfaces sharply flowing into the surface of the fender.



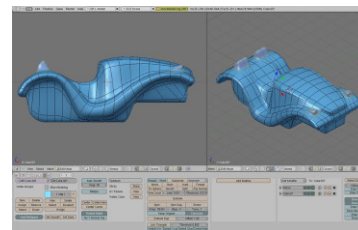
Step 7 Now, to build the engine block itself I selected specific edge points and positioned them again along a nice even curve trying to prevent kinks. To make the seat area more soft, I also moved their edge points away from each other. Compare step 7 with 7-1 and you will see how much just some push and pulling can actually create al-



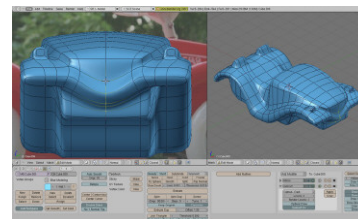
ready a quite impressive surface quality.

Finishing up the model with adding small features:

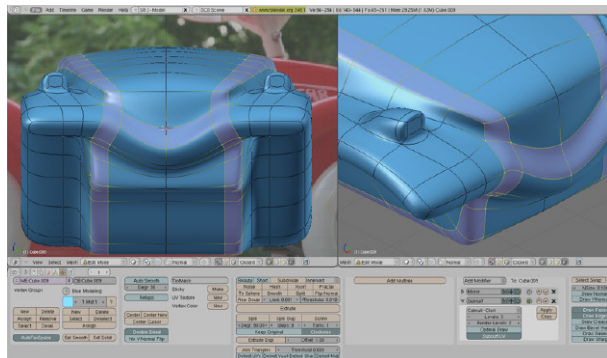
Step 8 At particular areas, I selected some faces and extruded them upwards to form the backrest and lamp bodies. While I was observing my reference images I was planning those in already. You can see this by how fine I started with step first, laying down already the required geometry for that later coming task.



Step 9 As a finishing touch, I selected some front center points and moved them straight down to give the car a more child-like, smiling attitude and expression.



Step 10 This image shows a problem with my engine block or hood edges. I highlighted the edge flow and you can see that those rings form a specific edge flow which is nice along the sides but does not continue in-front of the hood along the smiling part of the fender. In this case I would need to re-arrange my edge flow and with the given model it might be quite difficult to achieve.



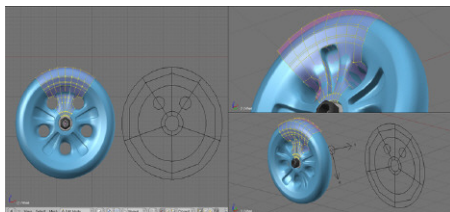
However this is a minor problem.

Wheel Styling and efficient distribution:

The wheel or more accurately, the rim and spoke design is quite a challenge when you look at the reference image and try to imagine the steps it would take to model it.

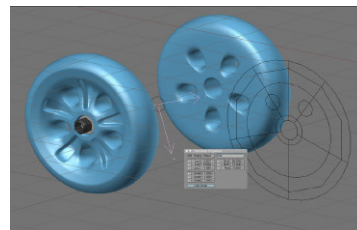
For a more detailed instruction, I would suggest that you follow my online video tutorial which explains all the steps taken in detail. In this text tutorial I would like to focus on some basics and the application of the array modifier in conjunction with the clone tool.

Step 1 Before starting to actually model the sketched out slices I need for the wheel and based on that what type of mesh density I need. Where the rims meet, where the spokes meet, where the holes



meet - all those design decisions should be answered as much as possible before you invest serious modeling time. In the following image you can see the final result of that attempt. Special care was spent on creating nice half round openings, which would, with the array modifier, form complete circles.

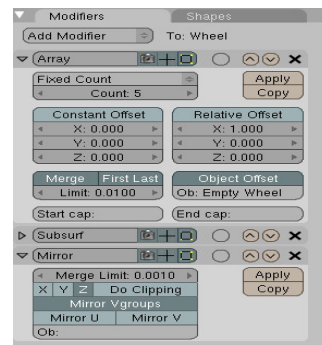
Step 2 The array modifier works similar to the mirror tool, however beside the ability to merge matching slices together, it can also array elements along a distance, line, or rotational value. In this case I used the rotational value utilizing an "Empty" as my value provider.



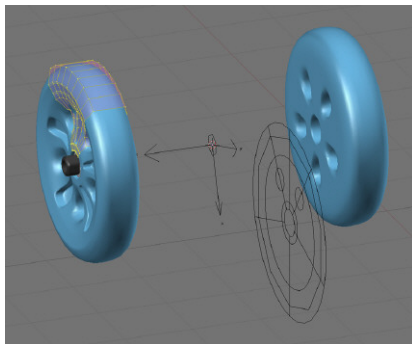
A quick calculation of 360 degrees divided by 5 slices results in 72 degree. My empty is thus rotated by 72 degrees.

Inside the array modifier the empty is defined as the object and the array count is set to 5.

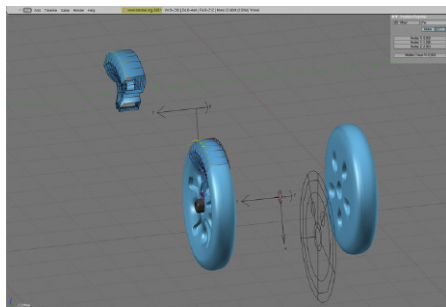
It is important besides "Merge" also to select the "First/Last" button as well. This will not only merge between the different slices but also between the start and end slices closing the circle.



Step 4 To finish up the wheel distribution, instead of duplicating the object with "shift" + "d", I cloned the object by pressing "alt" + "d". This command is called "Duplicate Linked" and means that another 3D container is being created which however links to a shared 3D mesh data block.



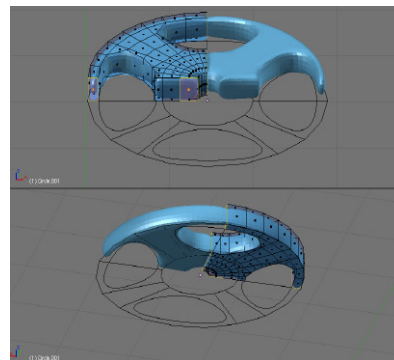
The great advantage is that I only need to edit one wheel and have the linked duplicate also updated in real time as you can see in the following image.



This working method saves work time and disk space because your mesh data does not increase with each added linked duplicate. Of course you can make a linked object a so called "Single User" by selecting the following command: Menu > Object > Make Single User > Object & ObData.

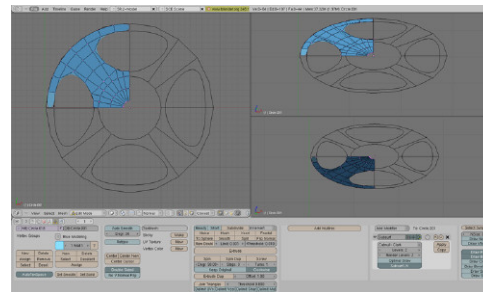
Steering Wheel

As a note when you work with faces and extrude surfaces upwards while also using the mirror modifier, you need often to delete faces which would be inside your model. The mirror modifier has no possibility to actually check if edges of geometry which meets through the modifier do not need to be extruded.

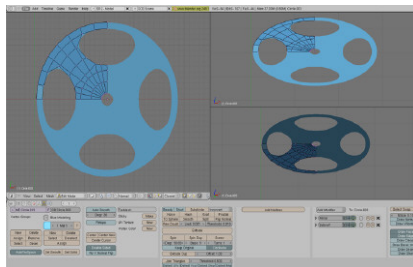


Inside the image you can see the faces I have selected and how the edge between the two quarter parts looks somewhat pinched. Remove those faces and the quarters will flow smoothly into each other.

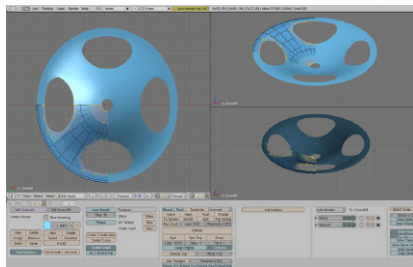
Step 1 Similarly with the wheel, a method of first sketching out basic proportions and mesh requirements was explored. I put down an outer and inner ring and tried to find a minimum requirement for mesh density to be able to model the wheel including also the holes.



Step 2 A mirror modifier is being used to create a complete 2D steering wheel sketch.

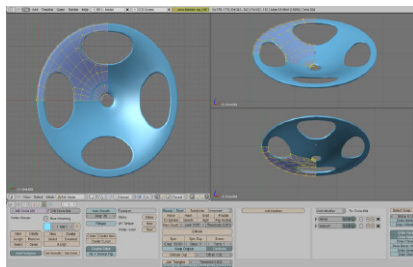


Step 3 An additional internal edge extrusion was applied inside the steering wheel holes to create the geometry which I would need later to model the material thickness from.



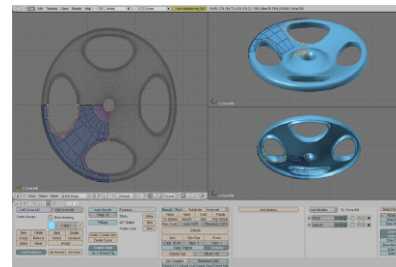
With proportional editing turned on, I moved the center ring down and created a nice and soft transition from the moved inside to the outside ring.

Step 4 With a simple straight down extrusion the material thickness was added.



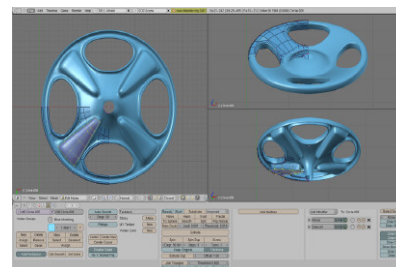
Step 5 In this step you can see why the additional edge extrusion was applied in step 3. By having the face edges selected, a simple additional extrusion downwards cre-

ated the surface for the hands to hold. This will make the wheel more comfortable to hold as well as more stable because of the added material geometry.



The upper center of the steering wheel also received some pushing and pulling adding a ball shaped dome.

Step 6 To build some additional strength and durability to the wheel, additional internal structures needed to be added. I selected some faces below the wheel and extruded them down.



The amount of points/faces you can work in this case seriously depends on the grid size you started to work on in step one. If the required amount of points is not present you can also actually bake the subdivision modifier by clicking on apply and continue working on a thus finer mesh.

Step 7 To round up the styling, through push and pulling, the lower edge was reduced and made sharper, to remove the bulky look. The extrusion was also connected to the center pipe to provide a nice flow.

Conclusion

I hope that this was an interesting read and useful to explore for those who like to try them out in transportation design with subdivided surface modeling.

At this point, I would also like to present a growing collection of entry level video tutorials which I started to record and present at Blip.TV as a supplemental resource for my CAD students. Please feel free to take a look at them. You can actually subscribe to the shows via the RSS feeds and have them downloaded right into iTunes, each time I upload a new one.

Please bear in mind that I made those in English - which is not my native language.

Online Video Tutorials at Blip.TV:

Rhino Modeling:

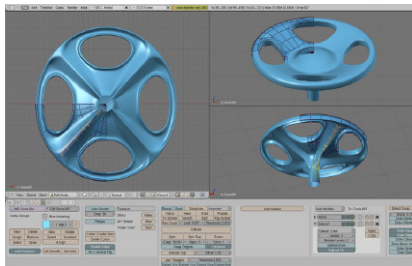
<http://modelingwithrhino.blip.tv/>

Blender Modeling:

<http://modelingwithblender.blip.tv/>

Blender Rendering:

<http://renderingwithblende.blip.tv/>



Download RSS Feed to iTunes:

Menu Advanced > Subscribe to Podcast

To subscribe to Podcast enter the RSS feed url.

Rhino Modeling RSS Feed

<http://modelingwithrhino.blip.tv/rss/itunes/>

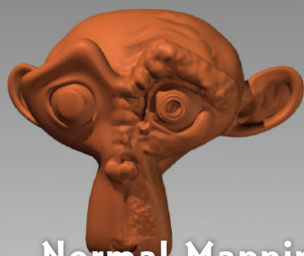
Blender Modeling RSS Feed

<http://modelingwithblender.blip.tv/rss/itunes/>

Blender Rendering

<http://renderingwithblende.blip.tv/rss/itunes/>

Or click on the iTunes icon inside Blip.TV ShowPage ■



Normal Mapping

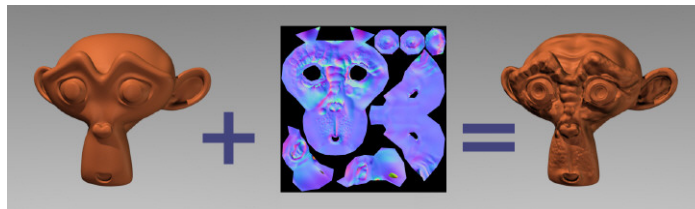
Introduction

Using a Normal Map, you can add high quality surface detail to a low poly mesh. The effect is similar to a Bump Map, except that the Normal Map algorithm uses more channels. Simply put, a Normal Map is more accurate and looks less "painted on" than the plain greyscale Bump Map method.

Normal Maps can make a low-poly mesh look high-poly, but without the CPU strain which a high-poly mesh would cause. For this reason, they are typically used in games where various characters and models need to look awesomely detailed but without slowing down the in-game action. In this tutorial, you are going to use a Normal Map to make a low-poly mesh look as though it is a high-poly version. Basic modeling knowledge of Blender, including UV unwrapping and Sculpt mode are assumed.

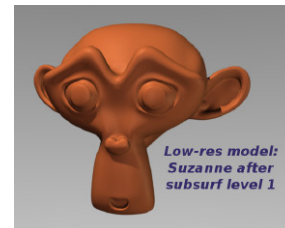
Outline:

- You will start off with a low-poly model, which you will need to UV unwrap.
- Once unwrapped, you will duplicate the low-poly model and use sculpt mode to create a high-poly copy.
- You will follow a simple baking process to create a Normal Map based on the difference of the two models
- Finally, you will apply the Normal Map to the low-poly model to see the effect.



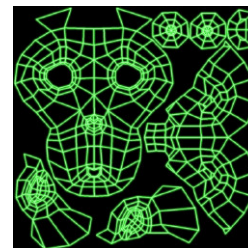
STEP 1: Prepare and unwrap your low poly model.

My low-poly mesh is the "Suzanne" monkey head, subdivided once. Suzanne is not really ideal because she has overlapping faces, especially around her eyes, which will likely be troublesome for Normal Mapping. Where possible use a simple base mesh without sandwiched faces. I have applied "set smooth" to her edges as this helps disguise that she is really a low poly mesh.



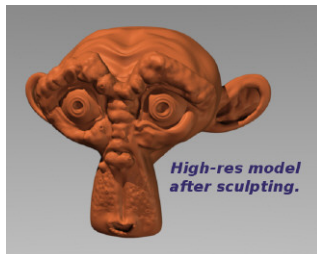
Unwrap your low-poly model. A good Normal Map depends on a quality (well spread out) UV layout.

Make sure the low poly mesh has an image associated with it from the UV editor. While in EDIT mode, assign a "new image" in the UV editor as needed (and pre-save this image). This new UV image is now set up and ready for baking, which comes later in STEP 3



STEP 2: Prepare a high-poly version.

You can make a high-poly copy of the low-poly mesh by duplicating (SHIFT-D) the low-poly version, then applying multires etc. and using Sculpt Mode to add in surface details.



A few pointers...

- Name each mesh (I'm calling mine "Suzanne_hi" and "Suzanne_lo")
- You do NOT need to have identically unwrapped UV maps for each mesh. Your high-poly mesh can be a completely different model for clever effects.
- When baking the Normal Map (STEP 3) it will be important to have both meshes in the same place; one inside the other (not side by side). When sculpting, move the low-poly mesh out of the way onto another layer (M-key).
- Sculpting should aim to add surface detail to your low-poly mesh (muscle bulges, cloth wrinkles, skin textures and so forth), but don't try to sculpt extensions your low-poly doesn't actually have (e.g. don't grow more arms or sink big holes).
- Save frequently. Sculpt mode is a heavy process, and is prone to crash.

STEP 3: Bake the Normal Map

SHIFT-select both the high and low poly models (the low-poly should be selected last!)

Now you need to bake (Scene (F10) => Bake options) with the following settings...



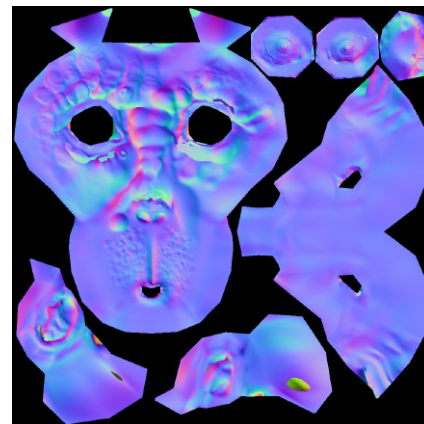
The Bake should be set to "normals" (not "full render").

Make sure "Selected to Active" is activated. This compares the high poly mesh against the low poly mesh in order to work out surface displacements.

Normal space should be set to "tangent". This will generate a Map that allows for the object to be animated (e.g. change rotation). Older methods could only make Normal Maps for stationary objects where only the lighting positions could change.

Now hit the big "BAKE" button and you should see your new and blue UV map generate. (I like using 1024 sized maps for reasonable resolution)

Save this map when you are done.



3D WORKSHOP: Normal Mapping in Blender

22



Lance Flavell(Lancer)

A recent graduate in 3D Animation from Auckland's Media Design School, and a registered teacher, Lance teaches Blender at "BubbleDome" courses during school breaks.

Website:
www animator.co.nz

by Lance Flavell

STEP 4: Apply the Normal Map to a low poly figure.

You no longer need the high-poly mesh. Simply apply the newly saved image as a texture to the low-poly mesh with a certain settings as shown...

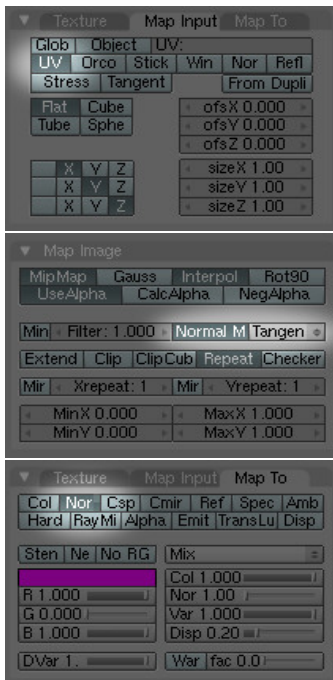
Under Shading (F5) => Materials (red ball icon)

Under "Map input" change the projection setting from "Orco" to "UV".

Under "map to" the default is "Col" (diffuse colour). Change this to "Nor" (normal, or bump).

To make the Map work as a Normal Map instead of a Bump Map, under Shading (F5) => Texture (F6) (the leopard skin icon), under "Map image" panel, hit "Normal Map" and select "Tangent" from the next drop list.

Your render (F12 key) should now show the low res model with all the bumps that the high resolution sculpt has. This technique works well on a subdivided mesh with "soft edges".

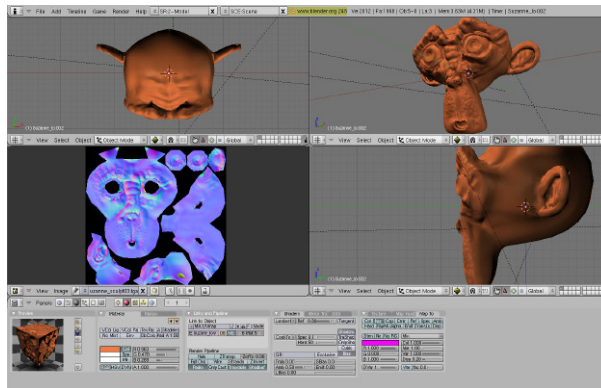
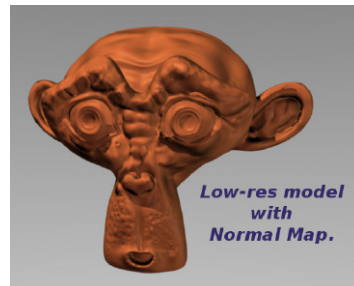


As you can see, this low-poly mesh now looks very similar to the higher poly sculpted version.

The result works well in GLSL / textured mode (go to the top menu "Game => GLSL materials" and then show a 3D window as "textured"). Game Engine also works, but be sure to delete the high-poly version before hitting "P" or you risk freezing up your machine.

Again, my choice in using Suzanne as a model is not ideal. The troublesome brown patches can be tweaked in Photoshop / Gimp etc. but it's much easier to avoid badly positioned faces.

So that's it. Now you can use Normal Mapping to give your low resolution meshes some high resolution punch, without compromising heavily on animation render times ■





Conveying Moods

By Dwayne Ferguson

Introduction

I've always been a big horror fan and remember the black and white movies from way back in the day. There were movies like *Them*, *From Hell it Came*, and *Nosferatu*, all of which really made an impression on me. In the case of *Nosferatu*, the lighting and use of shadow became as important as the title character himself.

Lighting and color always play major roles in our work as artists and film makers, whether we work in 2D or in 3D. When I art directed the TV animated series *Mutant League*, we had to convey teamwork and optimism in a bleak world so the lighting and colors, though muted, were often cheerful and upbeat. My studio produced a short animated film called *Black Zero: Mercenary Ant*, featuring a heroic covert operative who rescues people. For *Black Zero*, shadows played a major role in hiding the hero as he infiltrates an off-shore oil platform to rescue a hostage.



Today's current crop of horror films, particularly those from Japan, like the *Ring*, the *Grudge* and *One Missed Call* got me all hot and bothered to make one of my own. I'm currently working on an adaptation of the Edgar Allan Poe classic short story, the "Tell-Tale Heart: Larynx Edition". I thought it might

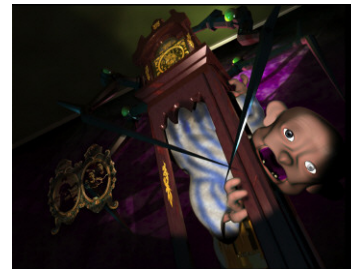
be fun to kick up the spooky a few notches.

The very first thing that came to mind, once I decided to do this short film, was lighting and mood. We all know the story but since I plan to make it creepier and scarier all around, I really need to think about lights, shadows and ways to make the viewer feel like they're in a claustrophobic situation.

In this promo shot for the film (rendered in Blender with textures from Photoshop), I have the Old Man being slightly chewed on by a grandfather clock that just happens to be possessed. You'll also notice the use of another lighting technique called a gobo. It's simply a light that projects an image such as the tree branches you see in the background.

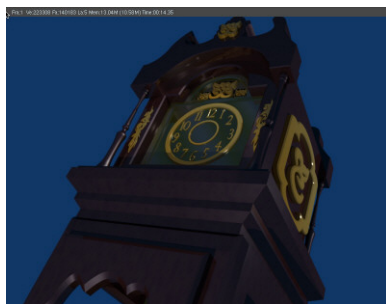
Guide the viewer's eyes with the lights, shadows and negative space. Very rarely do we find symmetry in the real world, so it's good practice to place your camera so that the focal point of your image or shot is never in the center.

Horror movies generally aren't very scary if you can fully see the monster coming down the hallway. Granted, there are some creatures like the *Alien* and any variety of *Jasons*, *Michael Myers*, etc, that will still make you straight out run like a track star. But in most situations, if turn those lights down really low, that monster could be a kitten and still make you run for the hills.



Lighting can also be used to great effect when combined with proper staging. The goal is to cover up a creature even further, thus creating the effect of dread. Take a look at films like *The Grudge*—the main attraction; a ghost name Kayako is typically only partially visible due to the long black hair covering her face. Rails on the staircase, a bathroom stall, her sticking halfway through a wall, etc., also often obscure her. In the rare times we do see her fully, she is in or surrounded by shadow (the hallway in the hospital in *Grudge 2*, for example).

So lighting is just part of the equation. Filmmakers might also wish to employ what is called a Dutch Angle, where the horizon is slanted to one side. This shot is used to cause disorientation in the viewer or to put them in the actor's place. There's really nothing scarier than the monster coming after you as you lay helpless on the ground in the woods. Here you can see the use of both the Dutch angle and lower illumination on the grandfather clock.



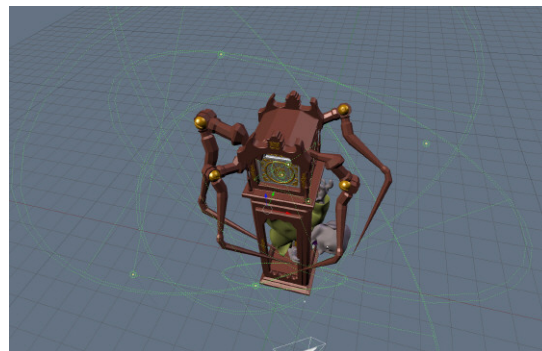
The simplest thing you can do to show that something isn't quite right in a scene is to defy the laws of nature. Our eyes and our senses are used to light sources naturally coming from above. We open our door to get the mail and we expect the sun to be in the sky (this, of course, also has to do with just how much beer you might have had the night before). When we wait for a

taxi late at night we expect the light to come from the moon, neon signs and the street lamps.

By placing your light source at an unexpected angle, say below a person's chin, we're immediately thrown out of whack. Lighting a subject from below makes us think about where the light is coming from. Low lights are great to convey supernatural forces or even the ground opening up beneath our feet.

So we're going to take a look at how you can convey a sense of dread, of dark power, with the lights in Blender. The following is just one of several methodologies when it comes to lighting. Some people adhere to the 3-point lighting routine (Key, Fill and Rim), whereas I use lights quite liberally in many situations. Although I don't stick with 3-point lights, I do typically start my lighting with 3 to set the mood. From there I'll add as many lights as necessary to emphasize parts of certain models or things I want the viewer's eye to catch, like the details in a clock face.

One potential pitfall you can try to avoid is placing all of your lights down right away. I've discovered that endless amounts of time can be wasted tweaking lights until you get them to look the way you wanted.



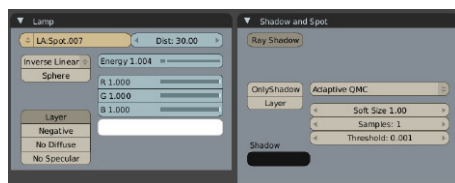
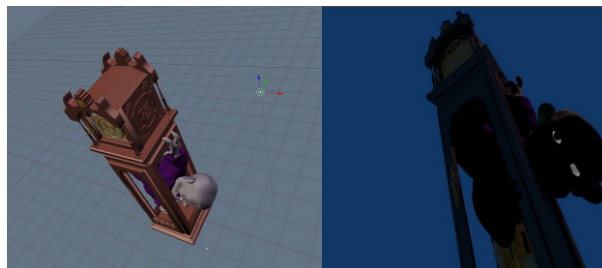
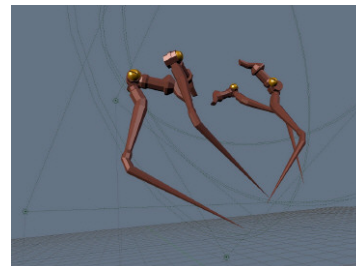
3D WORKSHOP: Lighting and Film Making Tricks: Conveying Moods

25

What I tend to do is to start with just one lamp and modify it until I'm happy. I'll move the lamp. Then I'll add the next lamp and put the original one on its own layer.

I add one lamp to the scene and modify its settings until I can make out the edges of the models. This type of light is called a Rim or Back light because its role is to push the models away from the background so they don't blend with other background objects. I normally start with the Rim since its usually the most difficult for me to adjust in a way that makes me happy.

placing specific elements and their lamps on separate layers a very beneficial way to achieve otherwise difficult illumination scenarios. I chose colors that one would not typically use to illuminate a room so they would feel out of place.

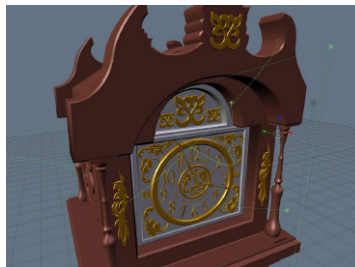


Anyone who's familiar with the original story knows there's an old man with a crazy eye, but there sure as heck ain't a clock that will eat your face off. It was important that the clock's arms had a very otherworldly feel to them so I placed them and their lights on their own layer. With these lamps set to only illuminate the items on the same layer, I avoided having these lights affect any other objects in the scene. You may find

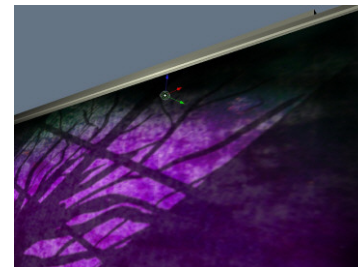


by Dwayne Ferguson

Just like the clock's arms, the face needed special attention. I placed 3 lights very close to the various parts such as the numbers, the entire face and all of the extra gold details. Making sure the viewer sees all this gold on the grandfather clock communicates the Old Man's wealth.



The ceiling lamp was the easiest of them all to place since it's job was to simply illuminate the texture on the wall and a small spot above the clock. This lamp's secondary role was to provide a small punch so the clock stood out a bit more from the background.



I hope you enjoyed seeing how I tend to work and the process behind the choices I make when directing and planning a film. Keep in mind that what we are creating is art, so try to find a balance between the technical and creative sides of the process ■

Dwayne Ferguson

Author is the CEO of DIEHARD Studio and has been involved in the entertainment industry for 25 years. He was the art director of the television animated series Mutant League, director of the short film Black Zero: Mercenary Ant, and the creator of the comic book series Hamster Vice.

Website: www.diehardstudio.com

by Dwayne Ferguson



Cassette Tape

Introduction

As technology develops further and further, some objects that are being used every day by millions of people suddenly become functionless. Then, all of a sudden, they become symbols, artifacts of a certain episode of time. That's what happened to the good old cassette. It reminds one of youth, good music, mix-tapes, being on the road and hanging around in front of a radio waiting for some special song with your finger on

the record button...

Let's celebrate the memory of this ancestor of all portable audio devices and animate the winding/unwinding of a cassette tape!

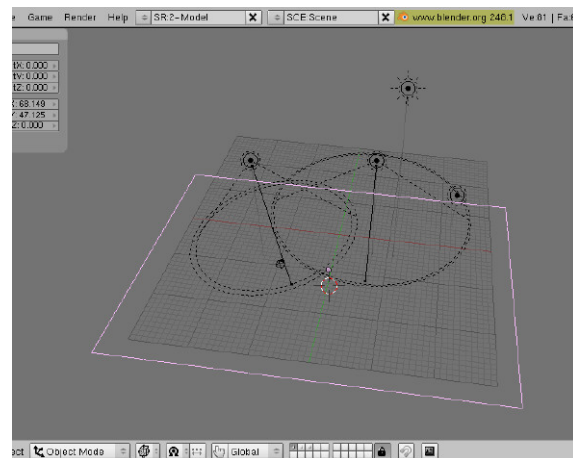


In the script I'm using this to get the X Loc and Y Loc values of each object out of their final desired position (b) and the center of the gazebo (a) which I get from an empty object that I can even animate

with oscillating movements to get interesting effects, check lines 68 and 78 for final implementation.

Setting up the Scene

First of all, set up a basic studio-like scene. I wanted the cassette and tape to be stretched out on white paper. Thus, I added a plane and gave it this Material: Slightly grey colour, no specular and a procedural marble-texture (noise-depth: 4) affecting the normal value. Two spot-lamps with somewhat old-fashioned buffered shadows, above all a sun and a forth lamp close to the floor illuminate everything.



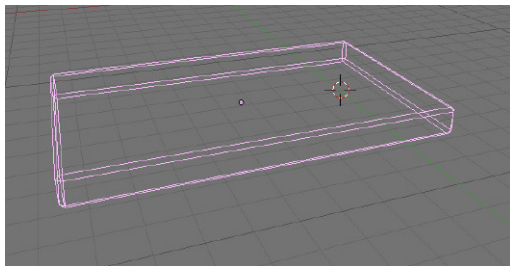
No tape without a cassette, so let's start with that. First, we need a simple cassette-sized box, with a Bevel-Modifier to get some rounded corners.

by Benno Wagner

MAKING OF: 'A Cassette Tape'

28

by Benno Wagner



Enough modeling, let's just add a photographic texture of a cassette. I took a picture of one I found at my parent's phono shelf. Pretty retro, hmm?



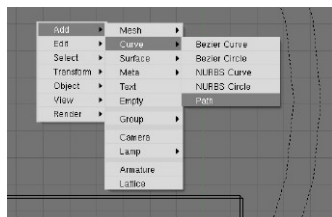
As this scene will mostly be shot from a bird's perspective, the lack of complexity of the cassette won't bother us.



The Tape

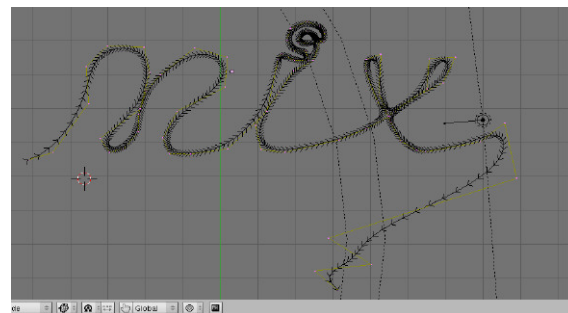
Now it's time for the tape. First add a path.

Grab and move the points and add some new using CTRL-LMB to

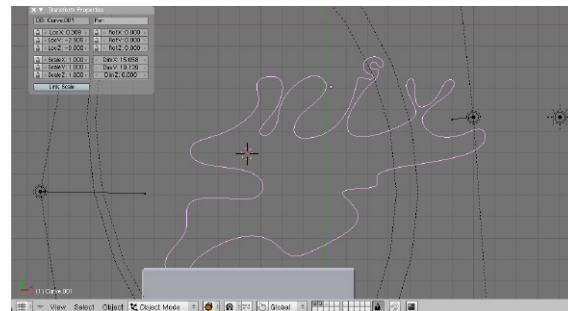


define the word/ phrase/ symbol you would like to lay out with tape. Remember: Sharp edges and crossings are quite unlikely in reality, so better avoid that (Trust me, I made some studies with real tape;).

It is useful to write out the word without lifting your pencil off the paper first!



I picked up the word "mix" to celebrate the ancient tradition of creating elaborate mix-tapes. Finally, the ends of the path should touch the edge of the cassette. Don't forget to name the path, like "mix".

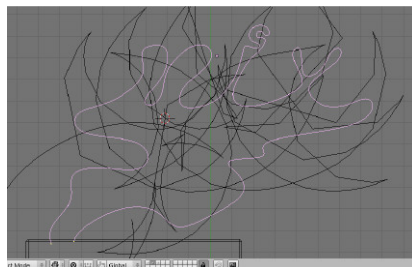
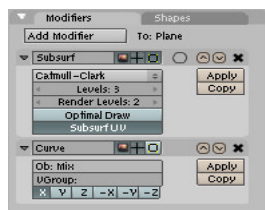
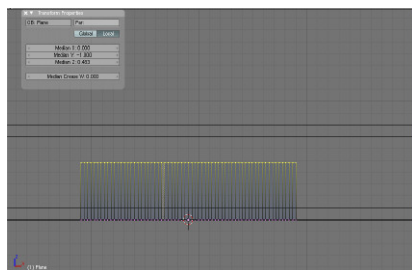
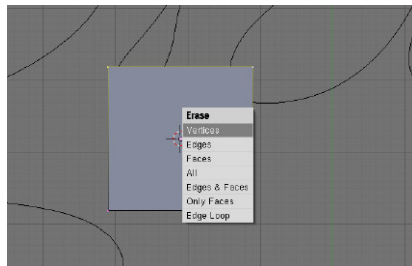


Well, that's the path, now we need the tape itself. Add a Plane and delete two vertices.

Select the remaining two and press "Subdivide" (->Find it in the Editing buttons) about 8 or 10 times. Now with all vertices being selected switch to front view and extrude them and give them the height of about $\frac{3}{4}$ of the cassette.

Next, we need two modifiers. First, add the Sub-Surf modifier and adjust it as you like. Second, add the Curve modifier. Fill in the name of your Path (in my case "mix").

Now, with the path selected, click on CurveS-tretch in the Editing buttons. The result will be shocking at first! Chaotic lines all over the place!



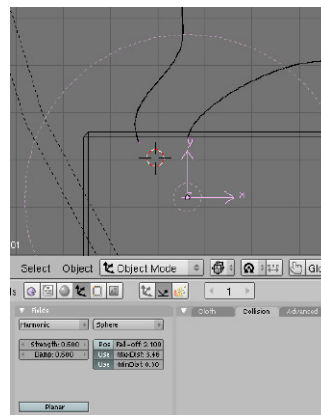
That's because something's wrong with the position of the mesh-tape object. Select the mesh-mess and move it along the y-axis until the mesh perfectly stretches along the path. You can increase the Sub-Surf value of the mesh if it looks somewhat edgy.

Animating the tape

Now, everything is set up to begin with animating the scene! First of all, we turn the Path into a Softbody. Select the Path, choose the Objects-but-tons, and then the Physics-but-tons. There, enable the Softbody-function. Set the friction-value to 2 and the gravity to 0.0 as the tape operates on a plain surface anyway. Finally, disable the "Use Goal" option.



Next, add an Empty just close to the ends of the tape, somewhere inside the cassette. In Object/ Physics-but-tons, with the Empty selected, choose the Harmonic-Field. There, set the strength value to 0.6 and give Damping a 0.6, too. As Fall-off-value, choose 2.1. Activate maximum and minimum distance by clicking on the small "use"-buttons and enter the following values: MaxDist: 3.46, MinDist: 0.30. You may change those values to your liking and even move the harmony-empty around to find the best settings for your scene.



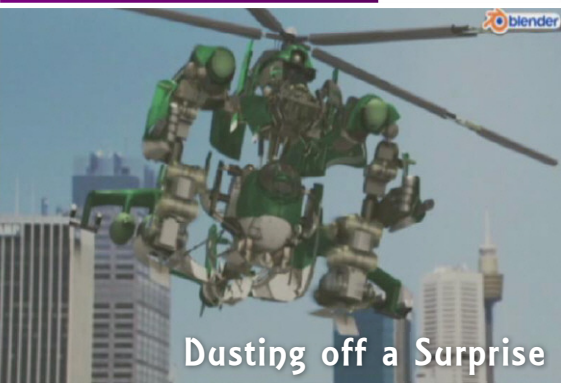
MAKING OF: 'A Cassette Tape'

30

That's it! Now press Alt+A and watch your laid out tape getting wound up! You might notice some crazy behaviour of the tape close to the Harmony-empty. Try to keep this whirling around to be happening inside the cassette. Move the Harmony-empty, or change its settings to handle this issue. You want the tape to emerge off the cassette? Just render your clip. Then, within the blender sequence editor, choose "reverse" and the tape revolves the other way round ■



by Benno Wagner



Dusting off a Surprise

by Giancarlo Ng

Introduction

It has been told time and again that it is the little things that will help make an event more acceptable to your audience. To that effect, applications like Blender have come equipped with many simulations, material settings, and nodes to create things like smoke, fog, and lighting that audiences can find acceptable for a scene or event in a story. Sometimes though, these effects require resources that are above what the general hobby-

ist can put together.

But that rarely stops the audience from asking for "a little extra."

One such requirement for "a little something extra" occurred when we were making a short reel called "The Surprise Attack." The animated demo was intended to be short, depicting just one "awesome" moment in time in a larger concept.

Specifically, the moment depicts an event of unexpected danger when a seemingly normal helicopter flies into view of a lone human person only for the said vehicle to shift and change into a metallic monster that literally takes on weight and falls out of the sky, landing on a rooftop helipad and acting generally menacing.

The reel looked fine but a little extra something was missing.

"There should be dust. When it comes down. That's a lot of weight so it would be nice for dust to get kicked up from the floor." said one member of my test audience.

I agreed of course with the assessment. It made sense. The artist in me definitely felt the same about that single piece of action. But it was no sooner than I had agreed to add dust, that I began assessing how tricky it could be to simulate it.

Traditionally, Blender comes equipped with things like Volumetrics and Particle simulations. I had seen a few clouds and fog done to good effect with these systems. But in almost all cases the render times were very significant. As a novice with only mid-range equipment and no render farm, doing it this way was out of the question.

But I really wanted that cloud of dust. I already knew some members of the potential audience would notice the need for it and I didn't want to disappoint. I also knew that if I could somehow solve this concern, the same method could be used to derive other similar effects in future projects.

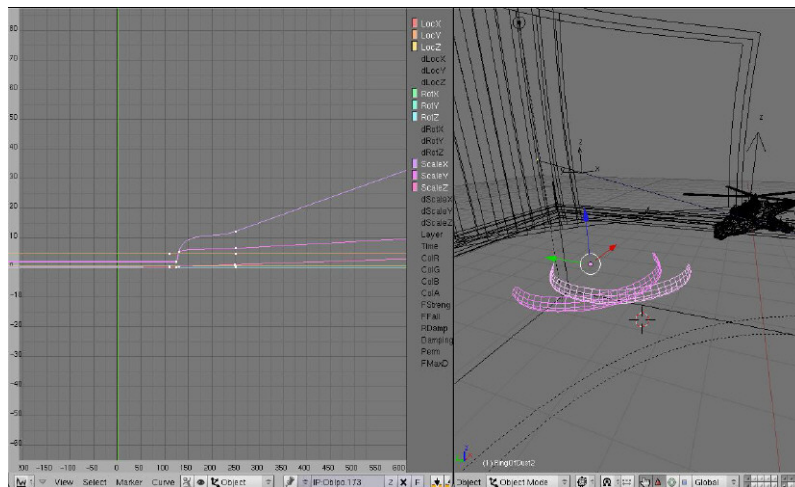
Having ruled out using Volumetrics or Particles, I decided the dust would have to be done with some good old-fashioned Texture Projection. This was something I had seen used for explosions and smoke in old video games from quite a few years ago, but getting it right was still kind of tricky. I was trying to pass off a cardboard cut-out for what had to appear as an effect with volume.

To achieve the effect I used some old clouds texture maps I had made in my stock and UV mapped it to a set of curved sub-surfed meshes that were modeled to appear like waves with their mid sections slightly protruding outwards.

MAKING OF: 'Dusting Off A Surprise'

32

The mesh shape appears below.



Once I was convinced that the dust had the right "look" all that remained was to animate the mesh

by keyframing Location, Rotation, and Scale so that the dust clouds started in very small size, grew larger and fanned out in a nice way for the camera.

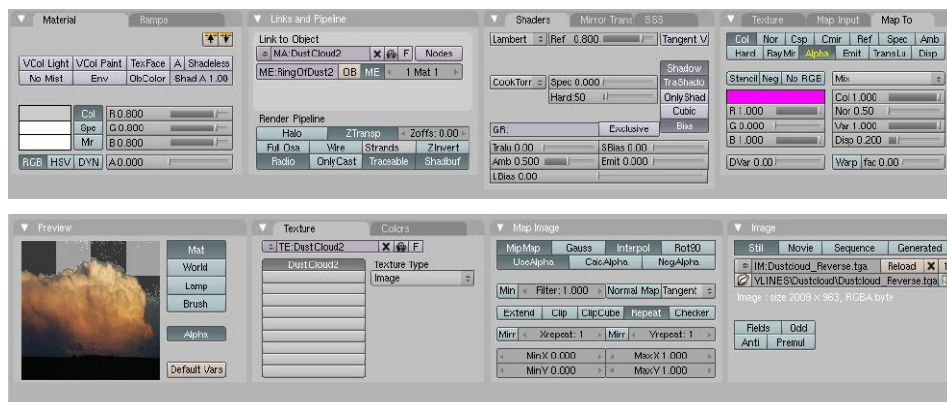
Finally, we tweaked the Dust cloud's Alpha setting so that the cloud starts out totally invisible, becomes opaque, and then dissipates back into nothingness as the mesh fans out.

The final effect, though not spectacular, performed to a satisfactory level with my test audience and appears to have escaped criticism, at least for the time being as I write this. The impact to

And the materials settings appear below

render times with this effect was also negligible. This same method can be used for other similar "background

effects" such as animated fog, smoke, gun fire, cigarette smoke, and to a certain extent it can even make do for halos on lamps and light fixtures on a set by using the right material.



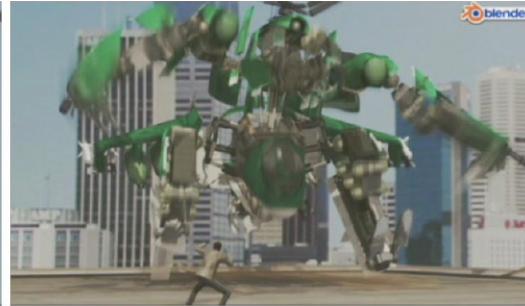
Don't forget, it's not always about how complex your visual effect was to make, many times it's just down to what your audience is going to actually see.

by Giancarlo Ng

MAKING OF: 'Dusting Off A Surprise'

33

by Giancarlo Ng



"The Surprise Attack" is available from
[YouTube](#)

Rapidshare ([Hi-Res](#)):
Rapidshare (for [Sony PSP](#)) ■



Blendeducation

Fast Track to Learn Blender

Over the years, my obsessive search for Blender related information and resources has led me to discover an amazing amount of resources. These resources I then compulsively save to CD and DVD to add to my personal Blender knowledge base for future reference.

What I have always enjoyed most, are those resources that let me see how an artist achieved something. It never ceases to delight me just how many ways Blender can be used and the sheer number of different work flows that are possible.

Which brings me to my latest find, [Blendeducation](#). I have wandered by their site a few times before; they have a nice series of [video tutorials](#). And now, Blendeducation has started offering online real-time classes.

Blendeducation puts the personal touch, which only seems to come from a classroom type setting into learning Blender. Which we all know from experience can sometimes be a little difficult on your own. So just how do you get started at Blendeducation?

First off, you need to register at the site and then you can sign up for offered classes. (There are complete instructions on the site explaining the sign up

process). Knowing that interested participants are in a number of different time zones, David included a time zone setting on his site, that once set to your time zone, allows you to see when the classes are offered in “your time”. Very handy indeed for those like me who are forever trying to make time conversion more complicated than it really is.

Once you have signed up, you receive an email invitation (on the day of the class) with a link to join a “net meeting” room. That is where your class will take place. After you join the class, you see the instructor’s desktop and watch the lesson in real time as it is being taught. There is even a chat room, where you can talk to the other students as well as the instructor.

Of course, being too curious for my own good, I have attended several classes already, and had so much fun that I plan on becoming a permanent student at Blendeducation. In fact I haven’t had that much fun in ages. Not only do I get to see how others work, I learn new things and get a chance to chat with fellow Blenderheads.

I can see enormous potential for this project. The ability to hold classes’ real time is a great way to get students from all over together in an interactive environment. And as most of the classes at this time are being offered for free, it is a wonderful way to expand your Blender knowledge and skills ■

by Sandra Gilbert



1- What inspired / or led you to start Blenducation?

In retrospect, it seems like my entire life has prepared me for this endeavor.

Identifying the Problem...

I started working with Blender and found lots of great tutorials in PDF, video and HTML format by some amazing people. When I watched Bassam's Chicken Chair (Can be viewed here) I was hooked. I had to learn more. The problem was getting answers to a particular problem. It was such a lengthy and almost impossible task.

I thought, "Wouldn't it be great if I could just ask the person that made that tutorial? It would save me so much time and effort." I am still waiting for GrayBeard to reply to me.

The Birth of the Idea...

I attended the Siggraph show in Boston 2006 after begging Ton to let me work the booth at the show. With David Millets help, Ton agreed to let me. After meeting Ton, Bassam, Andy, David Millet and the many other BlenderHeads at the Boston Siggraph, I discovered that Blender was not just about the 3D graphics, it was a community of people from all over the world with the same passion to create and help others create.

During that show I spoke with Bassam at length about starting a Blender User Group. From that discussion Blenducation was born. Though it was just a seed of an idea, it had legs. The name Blenducation was coined by Petri Rantanen AKA Falgor. After many hours of talking with the great folks in the IRC channels I was able to fine-tune the idea to Live Blender classes via a Web Browser. Now after two years of very hard work and many hundreds of hours, it's here.

2- Introduce yourself and tell us a little about your Blender experience?

My name is David Hickson. I have been learning Blender from the community for the last 3 years, and I am still learning new things every day.

How I found Blender...

I came across an article in a Mac World Magazine issue a few years ago and it had some information about Blender. I immediately went to the web site, downloaded the application and jumped right in. I soon realized that I was spending more time searching for resources to learn how to do the simplest processes than actually working in the program.

There are tons of good tutorials out there, but for every one good tutorial, you must weed through layers and layers of bad ones (at the time I had a full time job and you just can't be surfing the entire Internet looking for new tutorials when you have a real job). So anyway, once you have found one that covers the topic, it's usually incomplete or some small part has been over looked with the presumption that, "you should know that". This proved to be very unproductive and frustrating. I found myself saying, "I just want to model!" And to make matters worse I would jump from one subject to the next and miss huge parts of what was important.

During one of my Blender Ninja quests for knowledge, Bart pointed me in the direction of IRC and what a great resource that was. So many amazing artists just sitting there waiting to help, except my understanding of Blender was so bad I didn't even know how to ask good questions. Without knowing the basic terms of what I was doing and doing wrong I only frustrated people in IRC (I still do at times, sorry ZanQdo). I have since put away my paintbrushes and clay and now hold a mouse or Wacom pen instead.

3- Classes are currently being offered for free. Will there be fees for future classes, and if so how much are you expecting to be charging? Will there still be free courses as well?

There will always be FREE classes offered at Blenducation to introduce people to Blender and to get them started with Blender. Think of it as the welcoming committee to the Blender Community. These classes will have an open question and answer period throughout the class to help people find great resources and new challenges.

There will also be a pay-per-seat program set up for advanced classes. The prices will be set up on a tiered system. The more advanced the class, the more it will cost.

Tier one classes will be \$5US and \$10US per seat.

Tier two will be \$10 and \$15US per seat.

Tier three classes will be \$15 and \$20US per seat.

If a class runs three nights and is a tier three class, it will be offered at a discounted seat rate.

4- Not only are you offering Blender classes, but you have extended an invitation to interested instructors to use Blenducation to teach/offer classes as well. Can you tell us a little about how to get involved as an instructor at Blenducation?

Yes, I have begun to invite some power Blender users to become instructors at Blenducation and many of them have become part of the team. Among them is David Millet (US), an amazingly skilled gentleman and a great mentor.

Sebastian Koenig (Germany), whose works are truly amazing. He makes it look so effortless.

Then there is Mr. (Jonathan Williamson) Bomb (US), who's human anatomy could have landed him a gig as a Doctor, but the difference is that doctors only know the parts and Jonathan can make them.

OOPz AKA OOPz (England) is a very well known Blender artist that specializes in the world of Blender's Game Engine. His expertise in the BGE will be a key area of interest to many Blender artists.

Daniel Salazar AKA ZanQdo is a straight shoot, no fluff educator, if you are lucky enough to get into one of his classes you will come out a better artist.

Do I have more time? Ok, there is Goeland86 (US), who long ago invited me to join him on a project of recreating a historic air battle. He is a very gracious person with extreme patience.

And then there is Jean-Sébastien (Canada (AKA ECKS)) who has few equals when it comes to mechanicals, like cars and bikes.

Also there is another good friend of mine that is known as Super3Boy (US) infamous in YouTube world as the boy prodigy of the Blender community. Let me assure you his skills and knowledge don't end at Blender, have you checked out his website?

The list goes on to include our most influential Blender rigger Mr. Mancandy himself, Bassam Kurdali (US).

I was testing some stuff one day and invited him in to check it out and it froze up his laptop. If he forgives me he can do a couple classes.

What would this list be if I had not contacted and asked Roland Hess? That is correct, I am so excited that Roland has offered to give a couple of lectures for us.

Also on the team is; FWEEB, MFOXDOGG, Paulo Critovao, Templa Edhel, and many others joining us to help the community grow.

A more accurate and updated list is on the site at <http://blenducation.org/wordpress/presenters/>. It is their commitment that strengthens my resolve that the Blender community truly does care, thanks guys.

Qualifications...

You don't need to have a degree to teach classes at this point, although most of the very advanced classes or Tier three classes will be taught by Blender Foundation Certified Trainers (BFCT). The free classes are a great way to learn how to teach an online class.

Just submit a few renders and tell us why you would like to be on the team. If you are selected you will be notified and we will set you up your very own blog page. In addition to the blog page and your own gallery, all the instructors at Blenducation are offered free passes to other instructor's classes. This allows the presenters to grow their skills and sharpen their Blender knowledge from one another.

5- You mentioned setting up Certified training guidelines along with the BF Certified trainer program. Has any progress been made on that?

Yes in fact, I have spoken with a couple of key people on the BFCT board and we actually have a few instructors that have the BFCT credentials now.

I am waiting to see what happens in the next couple of months with the BFCT program, I have been told that some changes may take place. My hope is to layout a "Direct path to Becoming BFCT" program that will provide all the criteria one needs to know in order to submit your work with confidence to the BFCT board and become accepted. I am working closely with them in order to design this learning path. Obviously, not everyone will obtain their BFCT nor will they want to. Some people just want to learn more at their leisure. So there is no pressure.

6- What are your future goals for Blenducation?

The short-term goal is to add to our team of instructors so we can help users all over the world become more marketable in the industry. It has to start somewhere. It is true that a person with no degree gave the very first diploma.

Next we hope to add a testing center that will help those of you that wonder where you need to study more in order to go after your BFCT certificate or just to brush up on those rusty skills ■





Want to write for BlenderArt Magazine?

40

Here is how!

1. We accept the following:

- Tutorials explaining new Blender features, 3dconcepts, techniques or articles based on current theme of the magazine.
- Reports on useful Blender events throughout the world.
- Cartoons related to blender world.

2. Send submissions to sandra@blenderart.org. Send us a notification on what you want to write and we can follow up from there. (Some guidelines you must follow)

- Images are preferred in PNG but good quality JPG can also do. Images should be separate from the text document.
- Make sure that screenshots are clear and readable and the renders should be at least 800px, but not more than 1600px at maximum.
- Sequential naming of images like, image 001.png... etc.
- Text should be in either ODT, DOC, TXT or HTML.
- Archive them using 7zip or RAR or less preferably zip.

3. Please include the following in your email:

- Name: This can be your full name or blenderartist avatar.
- Photograph: As PNG and maximum width of 256Px. (Only if submitting the article for the first time)
- About yourself: Max 25 words .
- Website: (optional)

Note: All the approved submissions can be placed in the final issue or subsequent issue if deemed fit. All submissions will be cropped/modified if necessary. For more details see the blenderart website.

Issue 19

Look What I Can DO!!!

- A look at various artists and their current projects, showcasing what is possible in Blender.
- Still Images, Animations, Games.
- Python Scripts.
- Coding Contributions.
- Both commercial and/or personal projects welcome.

Disclaimer

blenderart.org does not take any responsibility both expressed or implied for the material and its nature or accuracy of the information which is published in this PDF magazine. All the materials presented in this PDF magazine have been produced with the expressed permission of their respective authors/owners. blenderart.org and the contributors disclaim all warranties, expressed or implied, including, but not limited to implied warranties of merchantability or fitness for a particular purpose. All images and materials present in this document are printed/re-printed with expressed permission from the authors/owners.

This PDF magazine is archived and available from the blenderart.org website. The blenderart magazine is made available under Creative Commons' Attribution-NoDerivs 2.5' license.

COPYRIGHT© 2008 'BlenderArt Magazine', 'blenderart' and BlenderArt logo are copyright of Gaurav Nawani. 'Izzy' and 'Izzy logo' are copyright Sandra Gilbert. All products and company names featured in the publication are trademark or registered trade marks of their respective owners.